



VITAL CONDITIONS

A Healthy Environment

The vital condition of A Healthy Environment is about having a clean, healthy environment for all, one that is free from environmental hazards, one that is resilient to future changes and threats, and one that fulfills our needs to connect with nature.

A Healthy Environment is an indispensable vital condition that we all depend on for our health and well-being. Healthy environments provide clean air, clean water, clean land, and well-functioning ecosystems. A bad environment can lead to acute and chronic health problems ranging from premature death from air pollution, cancer from land and water contamination, developmental disabilities from mercury and lead, and a range of other detrimental outcomes. Where direct health impacts are not a concern, environmental degradation can still threaten the natural systems upon which humans rely. Pesticides can break links in the food chain, polluted runoff can destroy productive estuarine systems, and climate change can cause severe weather events, flooding, and change growing conditions in food producing areas.

Continuing influence of past legacies

Intensive development: Large-scale systems in our economy - food, energy, transportation, healthcare, water, and land development - have significant negative environmental impacts, such as pollution, land conversion and climate impacts. Strategy thus far has focused on reducing impacts rather than redesigning or engineering systems that prevent harms or are regenerative.

Environmental protection: The United States began addressing environmental issues seriously in the 1970s in response to dangerously high levels of smog, rivers so polluted they caught fire, and communities with high rates of cancer linked to dumping of toxic chemicals. Progress has been substantial with improvements nationwide in air quality, significant reductions in pollution from factories, power plants, cars and sewage treatment facilities, removal of lead from gasoline and paint, and improved management and disposal of hazardous chemicals and waste. In spite of this progress, serious and in many ways more complex challenges remain.

Pollution: Attempts to address pollution have focused on addressing particular pollutants, mitigating pollution once it has happened, and reducing major sources of pollution. Individually small but cumulatively large sources of pollution, like runoff from urban and agricultural lands, have received comparatively little attention even as their overall impact has increased in importance.

Climate impacts: Industrialization and our carbon-intensive economy has increased atmospheric concentrations of greenhouse gases to the point that significant weather and climate impacts are evident. These impacts are global in scale, and promise disruptions to basic systems upon which humans and the natural world rely.

Environmental racism: Poor and/or dangerous environmental conditions are not distributed evenly. Due to the concentration of industries, weather patterns, past dumping, and upstream pollution, some areas bear disproportionate impacts to environmental hazards. Communities of color and low income communities are disproportionately exposed to environmental hazards, termed environmental racism.

Current conditions

133.9 million people live in communities with unhealthy levels of ozone or particulate matter putting them at risk for premature death and other serious health effects such as lung cancer, asthma attacks, cardiovascular damage, and developmental and reproductive harm.¹

81% of energy is derived from fossil fuels (oil, natural gas, coal), down from **91%** since 1949. Per capita energy use has remained steady since the 1970s.²

The United States emits approximately **15.1 trillion pounds** of greenhouse gases each year, an **increase of 7%** since 1990.³

Atmospheric CO₂ concentrations have **increased 42%** since the 1700s.⁴

8 out of 10 of the warmest years on record in the U.S. have occurred since 1998.⁵

300 billion gallons of freshwater are extracted daily from surface and groundwater sources.⁶

1 in 10 drinking water systems in the U.S. had health-based violations in 2016.⁷

Between 2001 and 2010, developed land increased in size equal to the size of the **State of Idaho**.⁸

¹American Lung Association; ²U.S. Energy Information Administration; ^{3,4,5}U.S. EPA; ⁶USGS; ^{7,8}U.S. EPA

Major forces shaping current and future priorities

Sustainability: Sustainability is a major movement that is driving disruptive innovations- forcing changes to sectoral practices, market economies and development patterns around the world. Sustainable development is the principle that meeting human development goals is possible while sustaining - or restoring - the ability of natural systems to provide natural resources and ecosystem services. Various sectors - from energy to healthcare - increasingly recognize their contributions to environmental degradation and challenge the status quo. Sustainability thinking is shifting paradigms; however, questions of how much and how quickly loom large.

Climate change: Climate change has been called the greatest public health challenge of the 21st Century. It presents significant threats to the health and well-being of communities around the United States and the world. Impacts of climate change vary between communities, with certain places facing more significant problems or challenges, and all communities needing to prepare for change. Despite wide consensus in the scientific community about the nature of environmental problems that face society, political institutions remain a barrier to transformational change. In a vacuum of federal leadership, communities are recognizing how to make a difference at the local level.

Local action: Communities are increasingly aware of their vulnerabilities to environmental stressors. They are recognizing the need to act locally in order to mitigate threats and prepare for future challenges. At the local level, climate action planning, community resilience strategies and similar efforts are ways that communities are beginning to change the status quo.

Environmental justice: The environmental justice movement refers to the movement primarily championed by people of color to address the disproportionate environmental impacts and exposure to hazards borne by their communities. Since the 1980s, the environmental justice movement has advanced public awareness and has helped re-organize national environmental priorities.

What are important priorities or ways to ensure a positive legacy?

There are infinite opportunities to make progress, across every sphere of influence.
Here are just a few that could yield great benefits:

1. Advance aims of environmental and climate justice
2. Engage in meaningful, coordinated actions and problem-solving to address climate-related issues at local, state, national and international levels
3. Transition to a green economy
4. Emphasize mass transit systems
5. Mainstream development patterns that are compact
6. Create an economic case for an ecosystem approach that treats monetary and social factors equally
7. Deploy regenerative agriculture practices that increase biodiversity, enrich soils, improve watersheds, and enhance ecosystem services